# DEPARTMENT of ENVIRONMENTAL SERVICES Water Division - Watershed Management Bureau

# LAKE TROPHIC DATA

# MORPHOMETRIC:

| Lake: MILL POND      |        | Lake Area (ha):             | 10.44 |
|----------------------|--------|-----------------------------|-------|
| Town: WASHING        | TON    | Maximum depth (m):          | 2.4   |
| County: Sulliva      | n      | Mean depth (m):             | 0.7   |
| River Basin: Connect | icut   | Volume (m³):                | 69000 |
| Latitude: 43°14'0    | 1" N   | Relative depth:             | 0.7   |
| Longitude: 72°06'0   | 6" W   | Shore configuration:        | 1.57  |
| Elevation (ft):      | 1639   | Areal water load (m/yr):    | 70.28 |
| Shore length (m):    | 1800   | Flushing rate $(yr^{-1})$ : | 106.0 |
| Watershed area (ha): | 1070.1 | P retention coeff.:         | 0.29  |
| % watershed ponded:  | 3.2    | Lake type: natural          | w/dam |

| BIOLOGICAL:                        | 11 January 2000    | 6 July 1999          |
|------------------------------------|--------------------|----------------------|
| DOM. PHYTOPLANKTON (% TOTAL) #1    | NO WINTER PLANKTON | CHRYSOSPHAERELLA 45% |
| #2                                 | ANALYZED           | DINOBRYON 40%        |
| #3                                 |                    | MALLOMONAS 7%        |
| PHYTOPLANKTON ABUNDANCE (units/mL) |                    |                      |
| CHLOROPHYLL-A (µg/L)               |                    | 13.89                |
| DOM. ZOOPLANKTON (% TOTAL) #1      |                    | NAUPLIUS LARVA 39%   |
| #2                                 |                    | POLYARTHRA 19%       |
| #3                                 |                    |                      |
| ROTIFERS/LITER                     |                    | 190                  |
| MICROCRUSTACEA/LITER               |                    | 486                  |
| ZOOPLANKTON ABUNDANCE (#/L)        |                    | 758                  |
| VASCULAR PLANT ABUNDANCE           |                    | Very abundant        |
| SECCHI DISK TRANSPARENCY (m)       |                    | 1.6                  |
| BOTTOM DISSOLVED OXYGEN (mg/L)     | 14.2               | 0.3                  |
| BACTERIA (E. coli, #/100 ml) #1    |                    |                      |
| #2                                 |                    |                      |
| #3                                 |                    |                      |

#### SUMMER THERMAL STRATIFICATION:

# weakly stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³):

500

| CHEMICAL:                |          |          | MILL PONI<br>WASHINGTO |           |  |
|--------------------------|----------|----------|------------------------|-----------|--|
|                          | 11 Janua | ary 2000 | 6 .                    | July 1999 |  |
| DEPTH (m)                | 1.0      |          | 1.5                    |           |  |
| pH (units)               | 5.9      |          | 5.8                    |           |  |
| A.N.C. (Alkalinity)      | 6.9      |          | 1.1                    |           |  |
| NITRATE NITROGEN         | 0.28     |          | < 0.05                 |           |  |
| TOTAL KJELDAHL NITROGEN  | 0.24     |          | 0.50                   |           |  |
| TOTAL PHOSPHORUS         | 0.005    |          | 0.023                  |           |  |
| CONDUCTIVITY (µmhos/cm)  | 21.8     |          | 17.8                   |           |  |
| APPARENT COLOR (cpu)     | 18       |          | 46                     |           |  |
| MAGNESIUM                |          |          | 0.29                   |           |  |
| CALCIUM                  |          |          | 1.2                    |           |  |
| SODIUM                   |          |          | 1.1                    |           |  |
| POTASSIUM                |          |          | < 0.40                 |           |  |
| CHLORIDE                 | < 2      |          | < 2                    |           |  |
| SULFATE                  | 4        |          | 3                      |           |  |
| TN : TP                  | 104      |          | 22                     |           |  |
| CALCITE SATURATION INDEX |          |          | 5.4                    |           |  |

All results in mg/L unless indicated otherwise

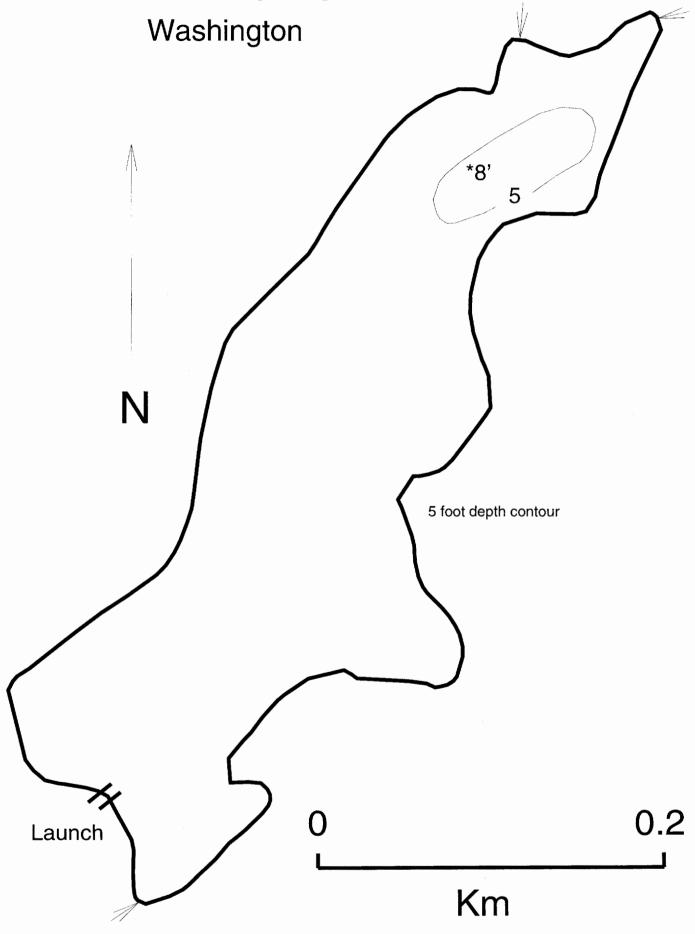
#### TROPHIC CLASSIFICATION: 1999

| D.O. | S.D. | PLANT | CHL | TOTAL | CLASS  |
|------|------|-------|-----|-------|--------|
| **   | 4    | 6     | 3   | 13    | Eutro. |

#### COMMENTS:

- 1. Also known as Cherry Valley Pond.
- 2. The pond is located within Pillsbury State Park between May Pond and North Pond. There is no boat access. A picnic area with a mowed lawn is adjacent to the pond.
- 3. Water level was down about one foot.
- 4. This is a shallow, tea-colored, somewhat acid eutrophic pond with abundant plant and algal growth.

# Mill Pond



#### FIELD DATA SHEET

LAKE: MILL POND DATE: 07/06/1999

TOWN: WASHINGTON

WEATHER: PARTLY SUNNY; HOT & HUMID

| DEPTH (M) | TEMP<br>(°C) | *DISSOLVED<br>OXYGEN | OXYGEN<br>SATURATION |
|-----------|--------------|----------------------|----------------------|
| 0.1       | 28.0         | 7.1                  | 91 %                 |
| 1.0       | 23.0         | 4.1                  | 48 %                 |
| 2.0       | 19.0         | 0.3                  | 3 %                  |
|           |              |                      |                      |
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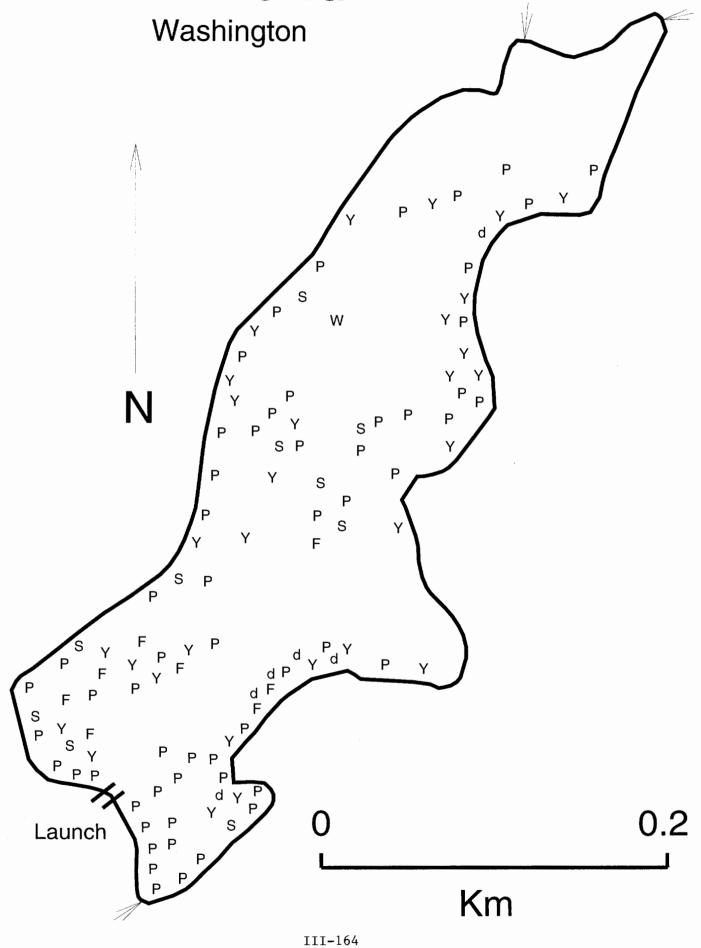
SECCHI DISK (m): 1.6 COMMENTS:

BOTTOM DEPTH (m): 2.4

TIME: 1220

\*Dissolved oxygen values are in mg/L

# Mill Pond



# AQUATIC PLANT SURVEY

| LAK | E: MILL POND   | TOWN: WASHINGTO | ON DATE: 07/06/1999 |
|-----|--|-----------------|---------------------|
| Key |  | PLANT NAME      | ABUNDANCE           |
| кеў | GENERIC  | СОМІ            | MON                 |
| P   | Pontederia cordata   | Pickerelweed    | Abundant            |
| Y   | Nuphar   | Yellow water    | lily Abundant       |
| N   | Nymphaea   | White water     | lily Common         |
| В   | Brasenia schreberi   | Water shield    | Abundant            |
| S   | Sparganium   | Bur reed        | Abundant            |
| U   | Utricularia  | Bladderwort     | Abundant            |
| F   | Nymphoides cordatum  | Floating hea    | rt Scattered        |
| W   | Potamogeton  | Pondweed        | Scattered           |
| d   | Dulichium arundinaceum   | Three-way se    | edge Sparse         |
|     |  |                 |                     |
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|     |  |                 |                     |

OVERALL ABUNDANCE: Very abundant

# **GENERAL OBSERVATIONS:**

- 1. N and B (Nymphaea and Brasenia) are not depicted on the map but they were present in the abundance listed above.
- 2. Bladderwort covered the entire bottom.